

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
13 May 2004 (13.05.2004)

PCT

(10) International Publication Number  
WO 2004/039177 A1

(51) International Patent Classification<sup>7</sup>: A23L 1/30, A23D 7/00, 9/007, A23L 1/302

A23L 1/30,

(72) Inventors; and

(75) Inventors/Applicants (for US only): FLÖTER, Eckhard [DE/NL]; UNILEVER R & D VLAARDINGEN, Olivier van Noortlaan 120, NL-3133 AT Vlaardingen (NL); GARBOLINO, Chiara [IT/NL]; UNILEVER R & D VLAARDINGEN, Olivier van Noortlaan 120, NL-3133 AT Vlaardingen (NL); TERPSTRA, Adriana, Hulberdina [NL/NL]; UNILEVER R & D VLAARDINGEN, Olivier van Noortlaan 120, NL-3133 AT Vlaardingen (NL).

(21) International Application Number: PCT/EP2003/010420

PCT/EP2003/010420

(22) International Filing Date: 18 September 2003 (18.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 02257560.9 31 October 2002 (31.10.2002) EP

(71) Applicant (for AL, AM, AT, AZ, BA, BE, BF, BG, BJ, BR, BY, CF, CG, CH, CI, CM, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FR, GA, GE, GN, GQ, GR, GW, HR, HU, ID, IS, IT, JP, KG, KP, KR, KZ, LR, LT, LU, LV, MA, MC, MD, MG, MK, ML, MR, MX, MZ, NE, NI, NL, NO, PH, PL, PT, RO, RU, SE, SI, SK, SN, SY, TD, TG, TI, TM, TN, TR, UA, UZ, VN, YU only): UNILEVER N.V. [NL/NL]; UNILEVER N.V., Weena 455, NL-3013 AL Rotterdam (NL).

(71) Applicant (for AE, AG, AU, BB, BZ, CA, CY, EG, GB, GD, GH, GM, IE, IL, KE, LC, LK, LS, MN, MW, NZ, OM, PG, SC, SD, SG, SL, SZ, TT, TZ, UG, VC, ZA, ZM, ZW only): UNILEVER PLC [GB/GB]; UNILEVER HOUSE, Blackfriars, London, Greater London EC4P 4BQ (GB).

(71) Applicant (for IN only): HINDUSTAN LEVER LIMITED [IN/IN]; Hindustan Lever House, 165/166 Backbay Reclamation, Maharashtra, 400 020 Mumbai (IN).

(74) Agent: VELZEN, Maaike, M.; UNILEVER N.V., PATENT DEPARTMENT, Olivier van Noortlaan 120, NL-3133 AT Vlaardingen (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FR, GA, GE, GN, GQ, GR, GW, HR, HU, ID, IS, IT, JP, KG, KP, KR, KZ, LR, LT, LU, LV, MA, MC, MD, MG, MK, ML, MR, MX, MZ, NE, NI, NL, NO, PH, PL, PT, RO, RU, SE, SI, SK, SN, SY, TD, TG, TI, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/039177 A1

(54) Title: WATER IN OIL EMULSION COMPRISING STEROLESTERS

(57) Abstract—The invention relates to water in oil emulsions comprising a sterol fatty acid ester to which folic acid has been added to counter act the effect of the sterol fatty acid ester on the droplet size of the dispersed aqueous phase.